DOCUMENT RESUME

ED 239 737 PS 013 682

AUTHOR Lundin, Janet, Ed.; O'Malley, Edward T., Ed.
TITLE Preparing Food for Preschoolers: A Guide for Food Service Personnel.
INSTITUTION California State Dept. of Education, Sacramento.
PUB DATE 83
NOTE 45p.; A Nutrition, Education and Training Program.
AVAILABLE FROM Bureau of Publications, California State Dept. of Education, P.O. Box 271, Sacramento, CA 95802 ($7.50 for 10 copies, plus sales tax for California residents).
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Allergy; Child Caregivers; Cultural Enrichment; *Day Care Centers; Equipment; *Food Service; Guidelines; *Nutrition; *Preschool Children; Preschool Education
IDENTIFIERS Menu Planning; PF Project; Recipes (Food)

ABSTRACT

Guidelines and suggestions to help food service workers in children's day care centers plan, prepare, and serve a variety of nutritious, tasty, and attractive meals and snacks are presented. The following topics are included (subtopics are listed in parentheses): (1) preparation of food (seasoning foods; preparing meat, fish, vegetables, and fruits; serving finger foods and simple foods; introducing new foods; and preparing garnishes); (2) menu planning (variety, meal patterns for children, seasonal foods, space and equipment, and menu evaluation); (3) kinds of meal service (family style, buffet style, cafeteria style, and picnic style); (4) suggestions for bag lunches and picnics (bag lunches; sandwich preparation; vegetable, fruit, and beverage preparation; and protection of food); (5) equipment; (6) other nutritional concerns (mealtime schedules, nutritious snacks, and special occasions); (7) cultural foods and menus (Chinese, Mexican, and Afro-American); and (8) allergies to foods. Appendices include a food substitution guide, snack recipes, and cultural recipes. A list of other publications available from the California State Department of Education is included. (DC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

T. Smith

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED239737

net

Preparing Food for Preschoolers

A Guide for Food Service Personnel

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

PS013682

CALIFORNIA STATE DEPARTMENT OF EDUCATION
Bill Honig, Superintendent of Public Instruction
Sacramento, 1983

net

Preparing Food for Preschoolers

A Guide for Food Service Personnel

Nutrition Education and Training Program

Publishing Information

This publication, which was edited by Janet Lundin and Edward T. O'Malley, was prepared for photo-offset production by the Bureau of Publications, California State Department of Education. The artwork and layout were created by Paul Lee. The guide, which was published by the Department, 721 Capitol Mall, Sacramento, CA 95814, was printed by the Office of State Printing and distributed under the provisions of the Library Distribution Act and *Government Code* Section 11096.

1983

Copies of this booklet and its companion document, *Making Mealtime a Happy Time for Preschoolers*, are available at a price of $7.50 for 10 copies, plus sales tax for California residents, from the Bureau of Publications, California State Department of Education, P.O. Box 271, Sacramento, CA 95802. A partial list of publications that are available from the Department appears on page 38.

An Equal Opportunity Program

The Nutrition Education and Training Program of the U.S. Department of Agriculture is available to all individuals regardless of race, color, national origin, age, sex, or handicap. Persons who believe they have been denied equal opportunity for participation may write to the Secretary of Agriculture, U.S. Department of Agriculture, Washington, DC 20250.

Contents

Acknowledgments v
Introduction 1
Preparation of Food 2
  Seasoning Foods 2
  Preparing Meat 3
  Preparing Fish 4
  Preparing Vegetables 4
  Preparing Fruits 5
  Serving Finger Foods 5
  Serving Simple Foods 6
  Introducing New Foods 6
  Preparing Garnishes 7
Menu Planning 9
  Variety in Menu Planning 9
  Meal Patterns for Children 10
  Seasonal Foods 12
  Space and Equipment 13
  Menu Evaluation 13
Kinds of Meal Service 14
  Family Style 14
  Buffet Style 15
  Cafeteria Style 15
  Picnic Style 15
Suggestions for Bag Lunches and Picnics 16
  Bag Lunches 16
  Sandwich Preparation 16
  Vegetable, Fruit, and Beverage Preparation 18
  Protection of Food 19
Equipment 20

Other Nutritional Concerns 21
Mealtime Schedules 21
Nutritious Snacks 21
Special Occasions 21
Cultural Foods and Menus 22
Allergies to Foods 23
Conclusion 24

Appendixes 25
Appendix A
Food Substitution Guide 26
Appendix B
Snack Recipes 28
Orange Chiller 28
Copa de Frutas 29
Crunchy Granola 29
Pizza Treats 30
Baked Potato Fingers 31
Super-Duper Peanut Butter Sandwiches 31
Potato Cheese Sticks 32
Appendix C
Cultural Recipes 33
Sesame Baked Chicken 33
Won Ton Soup 34
Tamale Pie 35
Quesadillas 36
Chicken with Dumplings 37

Acknowledgments

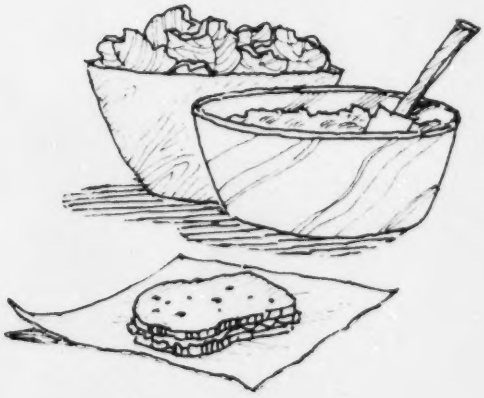
Appreciation is expressed to the following persons who provided their expertise and shared their experiences to help make this document useful to educators and food service personnel:

Lynette Haynes-Brown, Nutrition Education Specialist, California State Department of Education

Marilyn Briggs Ford, Nutrition Education Specialist, California State Department of Education

Doris Fredericks, Nutritionist, Continuing Development, Incorporated, San Jose

Frances Ledford, Nutritionist, San Francisco Unified School District, Children's Centers Department, San Francisco



Introduction

Food service workers in children's day-care centers have a unique opportunity to help preschoolers learn to choose nutritious foods. To accomplish this goal, the workers should plan, prepare, and serve a variety of nutritious, tasty, and attractive meals and snacks for the children in their care. The results of these efforts will be, it is hoped, that the children will develop positive attitudes about eating a variety of nutritious foods and will continue their good eating habits throughout their lives.

Preparation of Food

For children to develop good eating habits, food service personnel should serve food that is attractively prepared, easy to chew, and mildly flavored, yet tasty. The size and consistency of each food served should be such that children can eat it with the aid of a fork or spoon. The following hints for preparing food are presented to help food service personnel ensure that mealtimes are successful and pleasant experiences.

Seasoning Foods

Season foods mildly. Young children have a keen sense of taste because they have a large number of functioning taste buds. They tend to prefer mildly flavored foods and mild aromas. Spices should be used to enhance the natural flavor of foods, not to obscure them.[1]

A spice collection may include the following:

Allspice	Ginger	Pepper (black
Bay leaf	Marjoram	and white)

[1]The word *spices*, as used in this publication, includes herbs and aromatic seeds. Technically, spices are parts of plants, such as the dried seeds, buds, fruit, flower parts, bark, or roots of plants. Examples are cinnamon, nutmeg, and pepper. Herbs are the leafy parts of plants, such as basil and dillweed. Examples of aromatic seeds are caraway, anise, and fennel.

Chili powder	Mustard (dry)	Sage
Cinnamon	Nutmeg	Salt
Cloves	Onion powder	Sesame seed
Curry powder	Oregano	Thyme
Garlic powder	Paprika	Vanilla

The following seasoning secrets will bring out the most flavor from herbs and spices:

- For best results spices should be stored in a cool, dry place in airtight containers. Heat will make them lose their flavor, and a damp area promotes color change and caking.
- Containers should be closed tightly after use so that the oils of the spices are not lost.
- A pinch or a dash means ⅛ teaspoon (.6 g).
- Ground herbs and spices lose their flavors quickly. A small amount of these substances should be added about 20 minutes before the end of the cooking period.
- Whole herbs and spices are used best in dishes that take a long time to cook. For easy removal these ingredients should be placed in a small cheesecloth bag or metal tea ball.
- The number of calories in foods can be reduced by using herbs and spices as seasonings instead of butter or sauces.

Preparing Meat

Serve meat that is tender. When preparing meat for preschoolers, you should be sensitive to the chewing difficulties that young children might have. If the meat is tough, children will tire of chewing and lose interest in

their meal. The following methods show how meat can be prepared so that it is suitable for young children:

- Allow ample cooking time to tenderize less tender cuts of meat.
- Cook less tender cuts in liquids in a covered pan at reasonably low temperatures.
- Cook tender cuts by using dry heat (broiling or roasting).
- Serve meat in bite-size pieces.

Preparing Fish

Use the following methods to ensure the proper cooking of fish:

- Cook fish until it is just tender. Avoid overcooking.
- Cook by poaching, steaming, sauteing, or broiling.

Preparing Vegetables

Serve vegetables that are crunchy. They have more appeal when they are slightly undercooked, crisp, and colorful. Prolonged cooking causes vegetables to lose their color, texture, and some nutrients. Green vegetables, more so than other kinds, seem to lose most of their appeal as a result of long cooking times. Their natural green color slowly becomes a drab yellow-green when they are overcooked, and they lose their crisp texture as well.

To ensure proper cooking of vegetables, follow these suggestions:

- Cook vegetables by steaming, boiling, stir-frying, or baking.
- Cook vegetables quickly until they are just tender.

- Use a small amount of water when boiling vegetables. Use just enough water to bubble up over the vegetables. Large amounts of water leach out valuable nutrients.
- Cook green vegetables in an uncovered pan to retain their color.
- Do not add baking soda to brighten the color of the vegetables. This practice softens the fiber and causes nutrient loss.
- Serve vegetables soon after cooking.

Preparing Fruits

Serve fresh fruits as much as possible. Fruits need little preparation because they usually are soft and are easy for young children to chew. Sometimes, the skins may have to be removed. If so, peel the skins sparingly, since many nutrients are just under the skin. Fruit juices should not stay uncovered in the open air for a long time. To reduce the loss of vitamin C, store fruit juice in covered containers in the refrigerator.

Serving Finger Foods

Serve foods in bite-size pieces. Preschoolers enjoy finger foods, which are easy for the children to handle. These

foods promote children's independent eating habits. Cut meats into small pieces so that they are easy for preschoolers to chew. Slice cheese into cubes or strips, vegetables into strips, and fruits into wedges. Sandwiches can be cut into assorted shapes and sizes. The following are some examples of finger foods:

Apple wedges
Apricot wedges
Banana slices
Bell pepper strips
Cabbage leaves
Carrot sticks[2]
Cauliflowerettes
Celery sticks[2]
Cherries (pits removed)
Cherry tomatoes
Cucumber slices
Grapefruit sections
Grapes (seedless)
Melon cubes or balls
Nectarine wedges
Peach wedges
Pear wedges
Pineapple chunks
Prunes (pits removed)
Radish rounds
Strawberries
Tangerine sections
Turnip strips[2]
Vegetable kabobs
Zucchini strips

Serving Simple Foods

Prepare foods simply. Simple and familiar foods are often better accepted by most preschoolers. Children seem to feel more secure by eating foods they recognize. For example, steamed carrots may be accepted more readily as a single food rather than in a mixed vegetable casserole, particularly if the casserole includes many new foods. Foods prepared simply offer preschoolers an opportunity to distinguish shapes, colors, and distinct flavors.

Introducing New Foods

Introduce one new food at a time. If the children dislike or reject a new food, do not eliminate it from the menu

[2]These foods may be inappropriate for a child under age three. Foods, such as celery, that are high in cellulose may be difficult for children to chew.

choices. Wait a few weeks and reintroduce the food. The following are possible reasons why the children may have rejected the food:

- The mood of the children (overly tired or excited)
- Lack of appetite
- Period of slow growth
- Other foods that were served
- Preparation and/or presentation of the food

Preparing Garnishes

Serve food attractively so that it will appeal to young children. You are the artist in the kitchen; so use your

imagination to brighten up a dish. The key to using garnishes is naturalness and simplicity. Garnishes are not necessary for every dish, but they should be added to important ones. Garnishes can add interest to foods, including meats, salads, desserts, and sandwiches. The following are suggestions for using garnishes:

- Select garnishes that fit your budget.
- Use garnishes that are in season.
- Use garnishes that are edible.

Garnishes need not require a lot of time to prepare. The following are examples of what garnishes can add to meals:

- Tomatoes sliced or wedged add color and flavor to salads.
- Raw carrots, whether chopped, grated, or cut into sticks, add color and texture.
- Green pepper rings add taste, texture, and shape to a dish.
- Small amounts of fresh spinach add color and texture to salads.
- Parsley, chopped or whole, adds color and flavor to meats and sandwiches.
- Onions (green, white, or red) can be chopped or cut into rings or strips to add color, flavor, and texture.
- Oranges, lemons, or limes cut into wedges or slices can add flavor and color to fish.
- Red apples in their skins add texture and color.

Menu Planning

Careful menu planning ensures that the following will occur:

- A wide variety of foods will be served.
- The required components of each meal are included.
- The required amount of each component is planned.

"Meal Patterns for Children" on page 10 is presented as a guideline to provide adequate nutrition for children.[3]

Variety in Menu Planning

While planning your menu, you must also consider the texture, color, shape, flavor combinations, and the familiarity of foods. The visual presentation of food is very important. Young children respond to interesting shapes, colors, and textures. Thus, it is important to provide contrast in meals to make them more appealing. Consider the following points when planning a menu:

Shape: Shape food attractively. Foods such as cheese, vegetables, and fruits can be cut into strips, slices, cubes, or circles.

Color: Add colors to meals. Attractive, brightly colored foods appeal to young eyes. Vegetables and fruits can add color variety to meals.

Texture: Choose from a variety of textures—soft, smooth, chewy, and crunchy. Foods served raw, such as vegetables or fruits, can add texture to the cooked part of the meal. Different textures add variety and interest to meals.

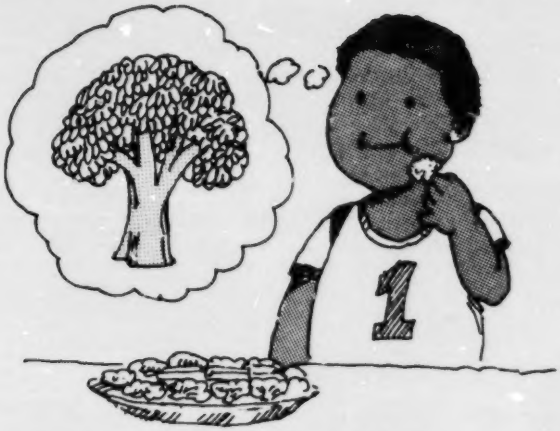
[3]These meal patterns are designed for those centers enrolled in the Child Care Food Program. These are, however, nutritious meal plans for young children and can be used as guidelines for planning meals by those agencies not enrolled in the Child Care Food Program.

Meal Patterns for Children

Food Components	Age 1 up to 3 years	Age 3 up to 6 years	Age 6 up to 12 years
Breakfast:			
1) Milk, fluid	1/2 cup (120 mL)	3/4 cup (180 mL)	1 cup (240 mL)
2) Vegetable, fruit, or full-strength juice	1/4 cup (60 mL)	1/2 cup (120 mL)	1/2 cup (120 mL)
3) **Bread and bread alternates (whole grain or enriched):**			
Bread	1/2 slice	1/2 slice	1 slice
or Cornbread, rolls, muffins, or biscuits	1/2 serving	1/2 serving	1 serving
or Cold dry cereal (volume or weight, whichever is less)	1/4 cup **or** 1/3 ounce (9 g)	1/3 cup **or** 1/2 ounce (14 g)	3/4 cup **or** 1 ounce (28 g)
or Cooked cereal, pasta, noodle products, or cereal grains	1/4 cup (Metric weight varies.)	1/4 cup (Metric weight varies.)	1/2 cup (Metric weight varies.)
Lunch or Supper:			
1) Milk, fluid	1/2 cup (120 mL)	3/4 cup (180 mL)	1 cup (240 mL)
2) Vegetable and/or fruit (2 or more kinds)	1/4 cup (60 g) total	1/2 cup (120 g) total	3/4 cup (180 g) total
3) **Bread and bread alternates (whole grain or enriched):**			
Bread	1/2 slice	1/2 slice	1 slice
or Cornbread, rolls, muffins, or biscuits	1/2 serving	1/2 serving	1 serving
or Cooked cereal, pasta, noodle products, or cereal grains	1/4 cup (Metric weight varies.)	1/4 cup (Metric weight varies.)	1/2 cup (Metric weight varies.)

4) **Meat or meat alternates** Lean meat, fish, or poultry (edible portion as served)	1 ounce (28 g)	1-1/2 ounces (43 g)	2 ounces (57 g)
or Cheese or cottage cheese	1 ounce (28 g)	1-1/2 ounces (43 g)	2 ounces (57 g)
or Egg	1 egg	1 egg	1 egg
or Cooked dry beans or peas	1/4 cup (45 g)	3/8 cup (67 g)	1/2 cup (90 g)
or Peanut butter	2 Tbsps (32 g)	3 Tbsps (48 g)	4 Tbsps (64 g)
AM or PM Supplement: **(select 2 of these 4 components)***			
1) Milk, fluid	1/2 cup (120 mL)	1/2 cup (120 mL)	1 cup (240 mL)
2) Vegetable, fruit, or full-strength juice	1/2 cup (120 mL)	1/2 cup (120 mL)	3/4 cup (180 mL)
3) **Bread and bread alternates (whole grain or enriched):**			
Bread	1/2 slice	1/2 slice	1 slice
or Cornbread, rolls, muffins, or biscuits	1/2 serving	1/2 serving	1 serving
or Cold dry cereal (volume or weight, whichever is less)	1/4 cup **or** 1/3 ounce (9 g)	1/3 cup **or** 1/2 ounce (14 g)	3/4 cup **or** 1 ounce (28 g)
or Cooked cereal, pasta, noodle products, or cereal grains	1/4 cup (Metric weight varies.)	1/4 cup (Metric weight varies.)	1/2 cup (Metric weight varies.)
4) **Meat or meat alternates** Lean meat, fish, or poultry (edible portion as served)	1/2 ounce (14 g)	1/2 ounce (14 g)	1 ounce (28 g)
or Cheese	1/2 ounce (14 g)	1/2 ounce (14 g)	1 ounce (28 g)
or Egg	1/2 egg	1/2 egg	1 egg
or Cooked dry beans or peas	1/8 cup (22 g)	1/8 cup (22 g)	1/4 cup (45 g)
or Peanut butter	1 Tbsp (16 g)	1 Tbsp (16 g)	2 Tbsp (32 g)

*Juice may not be served when milk is served as the only other component.



Temperature: Consider the temperature of the food being served. Children may not eat foods served at extreme temperatures. A young child's mouth is very sensitive to heat. Foods served at hot temperatures that do not affect adults may burn a child's mouth. Children may reject foods served straight from the freezer because they are too cold.

Familiarity of foods: Children seem to feel some security when they eat familiar foods. Introduce new foods one at a time, and serve them with other familiar foods. Also, plan simple surprises for children to make eating more fun. Serve them their favorite foods from time to time.

Other menu considerations that must be addressed are seasonal foods, space and equipment, and menu evaluation.

Seasonal Foods

Include foods that are in season. They can add a welcome change and variety to your menu. Purchase seasonal foods at the height of their season, when their prices will be relatively low.

Space and Equipment

Have enough space and the proper equipment necessary for the entire meal. Sufficient space can prevent congestion and delays during meal preparation. Good equipment that is kept in a clean, sanitary condition and properly maintained can save time.

Menu Evaluation

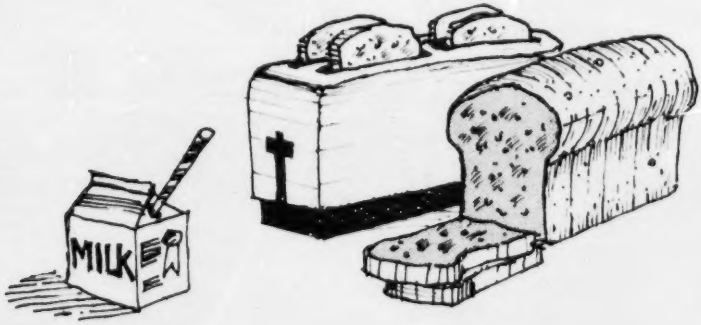
Evaluate your menus to ensure a variety of shapes, colors, and textures to create an attractive, appealing meal.

Evaluate the following menus:

Snack 1	Snack 2
Vanilla pudding (smooth, white)	Cinnamon wheat toast (crunchy, brown)
Milk (smooth, white)	Milk (smooth, white)

Snack 1: This menu is unattractive and unappealing. It provides no contrast of texture and color. The meal components for snacks have not been met.

Snack 2: This menu offers contrast in color and texture and would appeal to young eyes. Secondly, it meets the meal pattern components for a snack.



Kinds of Meal Service

Sometimes, the meal service may be varied according to the needs of the occasion. For example, a teacher may plan a meal outdoors, picnic style; or a teacher may request buffet style for a special occasion. Children enjoy these changes in meal service. Varied ways of serving meals provide different learning experiences for young children. Styles of serving food include family, buffet, cafeteria, and picnic.

Family Style

Each table is prepared with individual plates and flatware. The children and the teacher sit at the same table and share the meal. The food is placed in small bowls from which children can help themselves. Beverages served in small pitchers enable children to pour their own servings. Family style meals are recommended for young preschoolers.

Buffet Style

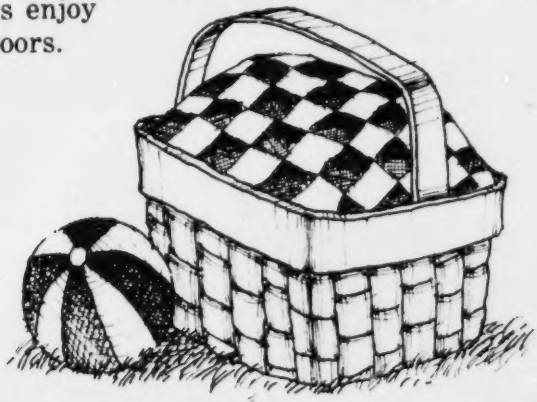
The plates, flatware, and food are placed in one location on the table. The children take a plate and flatware and serve themselves with or without help from the teacher. If the buffet style is selected, one should keep in mind that older preschoolers may handle this kind of service better than younger preschoolers, who may require some assistance.

Cafeteria Style

The plates, flatware, and food are placed on a serving tray. An adult serves the food on a child's tray which the child carries to the table. *This method is not recommended for preschoolers.*

Picnic Style[4]

Meals are eaten on a picnic table or on the ground outdoors. Picnic foods should be easy to prepare and carry. Paper plates, cups, and plastic utensils usually are used. Preschoolers enjoy eating outdoors.



[4]The same meal pattern outlined for a regular lunch should be followed for picnics and bag lunches. Potato chips and sweet cakes do not have to be included for these food service styles.

Suggestions for Bag Lunches and Picnics

The following suggestions for bag lunches and picnics give procedures for sandwich preparation; vegetable, fruit, and beverage preparation; and protection of food.

Bag Lunches

All the food and utensils (e.g., plastic spoons or forks), which are wrapped or packaged individually, are placed in an individual paper bag for each child. Nutritious foods should be selected for these events. A bag lunch menu may include the following:

- Turkey sandwich (Use whole wheat bread with lettuce and mayonnaise.)
- Cheese cubes
- Carrot and celery sticks
- Fresh fruit
- Milk

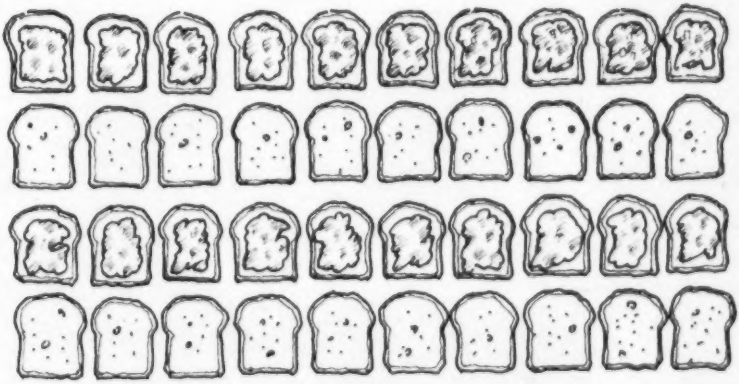
Sandwich Preparation

The following breads, fillings, and spreads are suggested for bag lunches:

Breads	Fillings	Spreads
Cornbread	Beans	Avocado
Rye	Cheese	Mayonnaise
Whole wheat	Chicken	Mustard
Tortillas	Egg	
	Peanut butter	
	Tuna	
	Turkey	

Recommended procedures for preparing sandwiches are as follows:

- Prepare fillings.
- Cut meat into thin slices.
- Wash lettuce and dry it.
- Arrange the bread in four rows of ten slices. This method will make 20 sandwiches.
- Spoon filling onto bread, in alternate rows, and spread evenly with a spatula.
- Place the slices of bread in the remaining rows over the filling.
- Stack several completed sandwiches and slice them with one stroke of a knife.
- Stack sandwiches on a tray and cover them with a damp cloth to prevent drying.
- Wrap each sandwich individually in waxed paper or aluminum foil, or place it in a sandwich bag. For a picnic, sandwiches can be served from a container and need not be wrapped individually.



Vegetable, Fruit, and Beverage Preparation

The fruits, vegetables, and beverages listed in this section are recommended for bag lunches.

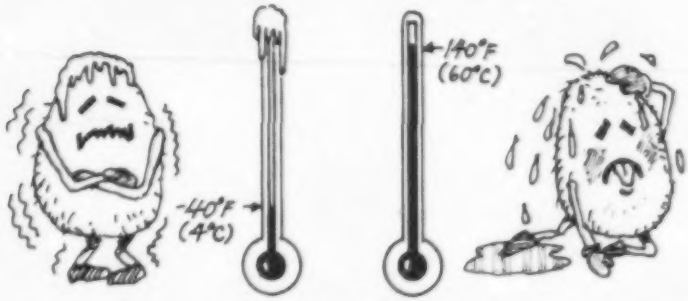
Fruits	Vegetables	Beverages
Apples	Broccoli	Fruit or vegetable juices
Apricots	Carrots	Water
Bananas	Cauliflower	Milk
Grapes (seedless)	Celery	
Nectarines	Cherry tomatoes	
Oranges	Cucumbers	
Melons	Green peppers	
Peaches	Lettuce or other green leafy vegetables	
Pears		
Plums		
Strawberries	Radishes	
Tangerines	Zucchini	

Listed below are methods for preparing vegetables, fruits, and beverages for picnics:

- Cut vegetables into strips, slices, or circles and pack them in individual plastic bags.
- Serve fruit whole for these occasions, because it is easier.
- Place heavy foods like firm fruit on the bottom of the bag.
- Place soft foods on top.
- Do not forget plastic spoons, forks, paper napkins, and paper cups.

Protection of Food

Both nutrition and sanitation are essential in all child feeding programs. Meals must be free from harmful substances, whether visible or invisible, that may cause illness.



During the preparation and storing of foods, be sure to maintain proper temperatures so that foods will not become contaminated and cause illness. Keep cold foods cold—40° F. (4° C) or below—and hot foods hot—140° F. (60° C) or above. Take special care that perishable foods, such as meat or egg sandwich fillings, do not stand at temperatures above 40° F. for more than two hours. Salads or sandwiches made from perishable foods, often using mayonnaise as an ingredient, can provide a medium for growth of bacteria. Special care, therefore, must be taken to keep these kinds of foods refrigerated at a safe temperature.

Be sure that everyone preparing and handling food is healthy and free from infections. Clean hands are essential at all times. Also, frequently check the cleanliness of the work areas, the storage and service areas and the equipment and utensils. Of course, a wash basin, warm water, soap, and towels should be in a convenient location for children to use before they are served meals and snacks.

Equipment

Eating utensils must be suitable in size, weight, and shape for young children to use easily. In the selection of such utensils, items to be considered are the following:

- Glasses, plates, and flatware should be unbreakable and child-sized.
- Glasses with a broad base should be used because they are easy for children to handle.
- Flatware that is easy to use can aid preschoolers in feeding themselves.
- Disposable flatware is difficult for preschoolers to handle.
- Flatware handles should be broad and short for little hands to grasp easily.
- Forks should have tines that are short and blunt.
- Small bowls should be provided for young preschoolers to eat from because the children can more easily push food against the side of their bowl and onto their fork. Older preschoolers can eat from plates.

Other Nutritional Concerns

To ensure that preschool children receive maximum nutritional benefits, consideration must be given to mealtime schedules and nutritious snacks and food prepared for special occasions.

Mealtime Schedules

There should be adequate spacing between meals. If meals are served too closely together, the children may not eat their food because they may not be hungry. On the other hand, if meals are served too far apart, children may become hungry and irritable.

Nutritious Snacks

Snacks provide an important part of the preschool child's daily food intake. They should be planned carefully so that they help meet children's total daily nutritional needs. Nutritious snacks have more food value than those with empty calories, which provide many calories but offer few nutrients.

Special Occasions

Special occasions may be birthdays or cultural events, such as Cinco de Mayo, Thanksgiving, or Christmas. On these days carefully plan attractive and nutritious meals. Keep salty and sugary foods to a minimum. The same rules of meal planning apply to these celebrated events. The important thing to remember when serving food to preschoolers is that they enjoy simply prepared, attractive meals. An elaborate menu for these occasions may be overwhelming for the preschooler.

Cultural Foods and Menus

Be sensitive to the needs of the children in your day-care center. For example, if your day-care center includes many Chinese children, try to serve foods that are reflective of their culture on your menu. Also plan to prepare recipes from other cultural groups. Serving foods from different ethnic groups can provide an enriching educational experience for the children. Sample menus showing various cultural dishes appear on the following chart:

Cultural Menus

	Breakfast	Morning snack	Lunch	Supplement
Chinese	Peach slices Cream of rice Milk	Orange juice Toast	Sesame chicken* Steamed rice Broccoli Fresh fruit Toast Milk	Won ton soup* Crackers
Mexican	Applesauce Whole wheat toast Milk	Orange juice Toast	Tamale pie* Peas Tossed salad Fresh fruit Tortilla Milk	Quesadilla* Milk
Afro-American	Orange wedges Grits Milk	Orange juice Toast	Chicken and dumplings* Green beans Toast Fresh fruit Milk	Cornbread Buttermilk

*A recipe is provided in Appendix C, which begins on page 33.

Allergies to Foods

Some children develop allergies to certain foods. That is, they become sensitive to them. The term *allergy* means "hypersensitivity to a specific substance which in a similar quantity does not bother other people." Allergic reactions to something a person eats can cause sneezing, wheezing, swelling, or itching. Other allergic reactions may be a headache, a stomach upset, a rash, or a stuffy or runny nose. Allergies to foods can occur at any age during one's lifespan. Among the more common causes of these allergies are the following:

Milk	Wheat
Chocolate	Corn
Eggs	Fish and shellfish
Citrus fruits	Nuts
Tomatoes	

To treat food allergies, eliminate those foods to which a child is allergic and provide appropriate substitutes that have similar nutritional values. Federal regulations state that to meet the needs of children in a day-care center who have allergies to certain foods, a physician should specify in writing the food or foods to be omitted from the child's diet and provide substitutions. A copy of the medical order should be kept on file. The "Food Substitution Guide" may help you make appropriate substitutions for certain foods. (See Appendix A on page 26.)

Conclusion

Feeding children in child care centers is a big responsibility for food service staff members. They must provide meals based on principles of good nutrition so that rapidly growing children receive required nutrients, develop good eating habits, and learn to make wise food choices. In this way staff members can contribute toward a lifetime of health and well-being for children.

Appendixes

Appendix A

Food Substitution Guide

Allergen	Primary nutrients	Substitutions for missing nutrients
Milk* (lactose intolerance)	Water	Juices, water
	Calcium**	Cheese, kale, collards, broccoli, mustard greens, blackstrap molasses
	Protein	Meats, poultry, fish, eggs, legumes, whole grains, nuts, cheese
Dairy products (milk, cheese)	Protein	Meats, poultry, fish, eggs, legumes, whole grains, nuts
	Calcium**	Collards, kale, okra, mustard greens, blackstrap molasses
Citrus fruits and juices (orange, grapefruit, lemon)	Water	Noncitrus juices, milk, water
	Vitamin C	Cantaloupe, strawberries, green peppers, tomatoes, dark green leafy vegetables,*** cabbage family †
Eggs	Protein	Meats, poultry, fish, dairy products, legumes, whole grains, nuts
	Vitamin A	Deep yellow fruits and vegetables,†† dark green leafy vegetables,*** fortified milk and margarine, broccoli

Tomatoes	Vitamin A	Dark green leafy vegetables,*** deep yellow fruits and vegetables,†† fortified milk and margarine, broccoli
	Vitamin C	Citrus fruits and juices, cantaloupe, strawberries, green peppers, cabbage family,† dark green leafy vegetables***
Fish or shellfish	Protein	Meats, poultry, dairy products, legumes, whole grains, eggs, nuts
Peanuts and peanut butter	Protein	Meats, poultry, fish, dairy products, eggs, whole grains, other legumes and nuts
Wheat	Fiber, protein, complex carbohydrate, B-vitamins	Other whole grains: barley, corn, millet, rice, rye, oats
Corn	Fiber, protein, complex carbohydrate, B-vitamins	Other whole grains: wheat, barley, millet, oats, rye, rice
Chocolate	None	None

*If the protein in the milk is the food allergen, eliminate cheese from the substitution list.
**The calcium requirement is difficult to meet without dairy foods.
***Dark green leafy vegetables include mustard, beet, collard, and turnip greens, chard, spinach, and bok choy.
†The cabbage family includes broccoli, brussels sprouts, cabbage, and cauliflower.
††Deep yellow fruits and vegetables include apricots, cantaloupe, nectarines, papaya, carrots, winter squash, and sweet potatoes.

This guide is reprinted with permission from the San Francisco Unified School District's Children's Center Department.

Appendix B

Snack Recipes

The snack recipes in this section, Orange Chiller, Copa de Frutas, Crunchy Granola, Pizza Treats, Baked Potato Fingers, Super-Duper Peanut Butter Sandwiches, and Potato Cheese Sticks, were chosen for their appeal to preschool-age children.

Orange Chiller

Yield: 50 servings
Serving size: 5 oz. (148 mL)

Ingredients	Measures
Milk	5 quarts (5 L)
Frozen orange juice concentrate	2 cups (474 mL)

Directions

Pour half of the milk into a large jar or pitcher.
Add orange juice concentrate.
Mix well.
Add rest of milk.
Chill.

Copa de Frutas

Yield: 50 servings
Serving size: ½ cup (118 mL)

Ingredients	Measures
Fruit cocktail	1 No. 10 can (106 oz., or 3 kg)
Applesauce	1 No. 10 can (108 oz., or 3 kg)
Fruit juice	2 cups (474 mL)

Directions

Combine drained fruit cocktail with applesauce and juice.
Pour into 4 oz. (118 mL) paper cups.
Chill or freeze with a plastic spoon inserted into the center to make frozen fruit bars.

Crunchy Granola

Yield: 32 servings
Serving size: ¼ cup (39 g)

Ingredients	Measures
Rolled Oats	4 cups (456 g)
Raisins	2 cups (303 g)
Coconut	2 cups (144 g)
Honey or molasses	½ cup (118 mL)
Oil	½ cup (118 mL)

Directions

Mix all ingredients in a bowl.
Spread the mixture out onto a greased cookie sheet.
Bake at 350° F. (177° C) for 15 minutes.
Store in a tightly covered container.

Pizza Treats

Yield: 48 servings
Serving size: One-half slice

Ingredients	Measures
Bread	24 slices
Tomato sauce	3 cups (711 mL)
Oregano	½ teaspoon (.33 g)
Cheese, grated	12 oz. (341 g)

Directions

Spread bread slices lightly with butter.
Season tomato sauce with oregano.
Spread 2 tablespoons of sauce on each buttered bread slice.
Sprinkle the sauce with about 2 tablespoons of grated cheese.
Refrigerate the mixture at this point if it is to be made ahead of time.
Heat in oven at 400° F. to 425° F. (204° C to 218° C) to melt the cheese.
Cut in half.
Serve hot.

Baked Potato Fingers

Yield: 24 servings
Serving size: Six pieces or ½ cup (101 g)

Ingredients	Measures
Potatoes	6 pounds (2.7 kg)
Butter	

Directions

Scrub potatoes. Do not peel.
Cut into finger-size pieces about 2½ inches (6 cm) long and ½ inch (1.27 cm) thick.
Place in buttered pan.
Bake at 400° F. (204° C) for about 45 to 50 minutes.
Salt lightly.
Serve hot.

Super-Duper Peanut Butter Sandwiches

Yield: 48 servings
Serving size: One-quarter sandwich

Ingredients	Measures
Bananas, mashed	2 cups (454 g)
Raisins	1½ cups (227 g)
Carrots, grated	2 cups (303 g)
Mayonnaise	⅓ cup (79 mL)
Peanut Butter	1 cup (256 g)
Bread	24 slices

Directions

Combine all the ingredients except the bread.
Spread on 12 slices of bread and make a sandwich.
Cut into quarters.

Potato Cheese Sticks

Yield: 60 servings
Serving size: Three to four sticks

Ingredients	Measures
Mashed potatoes	1 cup (199 g)
Flour	1 cup (142 g)
Butter	½ cup (114 g)
Egg	1
Cheese, grated	4 oz. (113 g)
Nutmeg	Dash
Salt	As desired

Directions

Stir potatoes in a saucepan for two minutes until they form a light film on the bottom of the pan, indicating that their moisture has evaporated.

Beat the flour into the potatoes; then add butter, egg, cheese, and seasonings.

Squeeze the mixture through a pastry tube or cookie press into 2½ inch (6 cm) lengths. Space them ½ inch (1.27 cm) apart onto a greased baking sheet.

Bake at 425° F. (218° C) for 15 minutes or until the sticks are lightly browned.

Appendix C

Cultural Recipes

The cultural recipes in this section represent the following ethnic groups: Chinese—Sesame Baked Chicken and Won Ton Soup; Mexican—Tamale Pie and Quesadillas; and Afro-American—Chicken with Dumplings.

Sesame Baked Chicken

Yield: 25 servings
1½ ounces (42.5 g) of meat each
Serving size: Approximately 3 ounces (85 g)

Ingredients	Measures
Eggs, lightly beaten	4
Milk	1 cup (237 mL)
Whole wheat flour	1 cup (151 g)
Baking powder	2 tablespoons (21 g)
Salt	2 tablespoons (21 g)
Paprika	4 tablespoons (24 g)
Sesame seeds	6 tablespoons (30 g)
Chicken legs	6¼ pounds (2.84 kg)
Vegetable oil	1 cup (237 mL)

Directions

Preheat the oven to 350° F. (177° C).
Beat egg and milk together.
Combine flour, baking powder, salt, paprika, and sesame seeds in a paper bag.
Dip the chicken pieces in the egg mixture and shake them in the paper bag.
Place the chicken legs in a baking dish so that they do not touch each other.
Pour oil over them and bake about one hour.

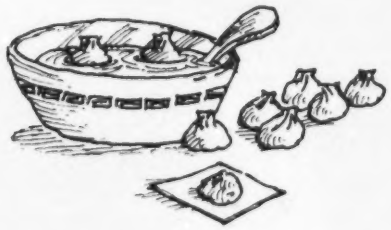
Won Ton Soup

Yield: 40 servings
½ ounce (14 g) of meat per serving (2 won tons)
Serving size: 2 won tons per bowl of soup

Ingredients	Measures
Shrimp, fresh, cooked	¼ pound (114 g)
Ground pork, cooked	1 pound (454 g)
Egg	1
Square won ton skins	80
Canned chicken broth or any clear soup broth mix	As needed

Directions

Chop shrimp into fine pieces and combine with ground pork.
Beat the egg in a bowl.
Lay the won ton skin flat on waxed paper.
Brush the border of a won ton skin with egg and drop a spoonful of the meat filling onto the middle of the won ton.
Bring the edges of the won ton together and pinch to seal.
Drop the won ton into a pot of boiling soup broth.
Boil for five minutes. Serve two won tons per serving of soup.



Tamale Pie

Yield: 30 servings
Serving size: ½ cup (100 g)

Ingredients	Measures
Cornmeal	2 cups (312 g)
Water	1 quart (1 L)
Salt	2 teaspoons (9 g)
Milk	1 quart (1 L)
Shortening	¼ cup (57 g)
Onion, chopped	1 cup (151 g)
Ground beef, raw	3 pounds (1.4 kg)
Tomatoes, canned	1 quart (.9 kg)
Salt	1 tablespoon (14 g)
Whole kernel corn	3½ cups (794 g)
Cheese, grated	1 pound (454 g)

Directions

Measure the meal into the top of double boiler. Add water and 2 teaspoons (9 g) salt. Boil, while stirring constantly, until the mixture begins to thicken.

Add milk, bring to a boil, stirring constantly. Set over boiling water to finish cooking, stirring occasionally.

Cook onions slowly in shortening.

Stir in the meat and continue cooking until the red color disappears. Drain the fat.

Add tomatoes, corn, and seasonings. Pour the mixture into greased baking dishes which have been lined with three-fourths of the cornmeal mush.

Cover the dish with the remainder of the mush, and sprinkle with grated cheese. Bake in the oven at 375° F. (191° C) for about 45 minutes.

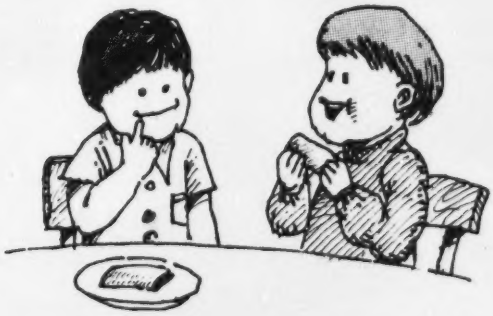
Quesadillas

Yield: 32 servings
½ ounce (14 g) of meat alternate for each serving
½ ounce (14 g) of bread alternate for each serving
Serving size: One quesadilla

Ingredients	Measures
Cheddar cheese, grated	8 ounces (227 g)
American cheese, grated	8 ounces (227 g)
Green chilies, chopped (mild)	¼ cup (45 g)
Flour tortillas, large	16 whole
Margarine	3 tablespoons (42 g)

Directions

Mix the cheeses and green chilies loosely.
Cut the tortilla in half.
Spoon ½ ounce (14 g) cheese onto each tortilla half.
Roll the tortilla like a burrito and brush it with margarine.
Heat in the oven at 350° F. (177° C) from 5 to 7 minutes. Serve immediately.



Chicken with Dumplings

Yield: 25 servings
1½ ounces (42 g) of meat each
½ serving bread alternate each
¼ cup (32 g) vegetables each
Serving size: Approximately ½ cup (100 g)

Ingredients	Measures
Stewing chicken	8½ pounds (3.86 kg)
Salt and pepper	As desired
Celery (diced)	1 pound (454 g)
Carrots (diced)	2 pounds (.9 kg)
Whole wheat flour (sifted)	3¼ cups (454 g)
Baking powder	3½ tablespoons (37 g)
Salt	2 teaspoons (9 g)
Eggs	4
Milk	1½ cups (356 mL)

Directions

Cook the chicken in boiling, salted water in a large kettle until it is tender.
Remove the chicken from the kettle; reserve the broth.
Remove chicken from bones; skim fat from broth.
Season with salt and pepper; add celery, carrots, and chicken meat.
Cook over low heat until the vegetables are tender.
Sift flour, baking powder, and salt together.
Beat eggs. Add milk.
Stir the egg mixture into the dry ingredients, mixing well.
Drop dumplings by spoonfuls into boiling chicken broth.
Cover tightly. Cook 15 minutes.
Do not remove the cover while the dumplings are cooking.
Serve dumplings over the chicken and broth.

Other Publications Available from the Department of Education

Preparing Food for Preschoolers is one of approximately 500 publications that are available from the California State Department of Education. Some of the more recent publications or those most widely used are the following:

American Indian Education Handbook (1982)	$3.50
California Private School Directory	9.00
California Public School Directory	12.50
Curriculum Design for Parenthood Education (1982)	4.00
Eating Habits of Students in California Public Schools, A Summary (1981)	2.50
Handbook for Planning an Effective Mathematics Program (1982)	2.00
Handbook for Planning an Effective Reading Program (1983)	1.50
Handbook for Planning an Effective Writing Program (1983)	2.50
History—Social Science Framework for California Public Schools (1981)	2.25
Improving Writing in California Schools: Problems and Solutions (1983)	2.00
Making Mealtime a Happy Time for Preschoolers (1983)	7.50 for 10
Nutrition Education—Choose Well, Be Well: A Resource Manual for Preschool, Kindergarten, and Elementary Teachers (1982)	2.25
Nutrition Education—Choose Well, Be Well: A Resource Manual for Secondary Teachers (1982)	2.25
Nutrition Education—Choose Well, Be Well: A Curriculum Guide for Preschool and Kindergarten (1982)	3.75
Nutrition Education—Choose Well, Be Well: A Curriculum Guide for the Primary Grades (1982)	3.75
Nutrition Education—Choose Well, Be Well: A Curriculum Guide for the Upper Elementary Grades (1982)	3.75
Preparing Food for Preschoolers (1983)	7.50 for 10
Preschool Program Guidelines (1983)	2.70
Raising Expectations: Model Graduation Requirements (1983)	2.75
Relationship Between Nutrition and Student Achievement, Behavior, and Health (1980)	4.00
Science Education for the 1980s (1982)	2.00
Visual and Performing Arts Framework for California Public Schools (1982)	3.25

Orders should be directed to:

California State Department of Education
P.O. Box 271
Sacramento, CA 95802

Remittance or purchase order must accompany order. Purchase orders without checks are accepted only from government agencies in California. Sales tax should be added to all orders from California purchasers.

A complete list of publications available from the Department may be obtained by writing to the address listed above.

77839-300 10-83 3M

83-26 03-0087 300 10-83 3M